

Docket No.: 055071-0311



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of	:	Customer Number: 20277
Stephen D. HSU, et al.	:	Confirmation Number: 3609
Application No.: 10/705,231	:	Group Art Unit: 1756
Filed: November 12, 2003	:	Examiner: Not yet assigned

For: METHOD AND APPARATUS FOR PERFORMING MODEL-BASED LAYOUT  
CONVERSION FOR USE WITH DIPOLE ILLUMINATION

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

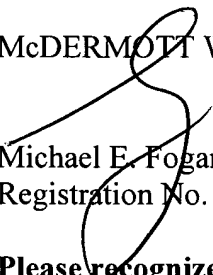
This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

10/705,231

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

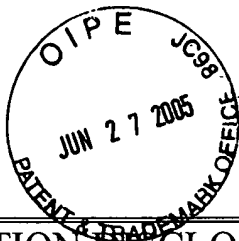
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SHEET 1 OF 1

<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <b>(PTO-1449)</b>	ATTY. DOCKET NO. <b>055071-0311</b>	SERIAL NO. <b>10/705,231</b>
	APPLICANT <b>Stephen D. HSU, et al.</b>	
	FILING DATE <b>November 12, 2003</b>	GROUP <b>1756</b>

**U.S. PATENT DOCUMENTS**

EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US 6,553,562 B2	4-22-2003	Capodieci et al.	
		US 2004/0003368 A1	1-1-2004	Hsu et al.	
		US 2004/0139418 A1	7-15-2004	Shi et al.	
		US 2005/0102648 A1	5-12-2005	Hsu et al.	
		US 2003/0082463 A1	5-1-2003	Laidig et al.	
		US 6,792,591 B1	9-14-2004	Shi et al.	
		US 6,851,103 B2	2-1-2005	Van Den Broeke et al.	
		US 2002/166107 A1	11-7-2002	Capodieci et al.	
		US			
		US			

**FOREIGN PATENT DOCUMENTS**

EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Code <sup>3</sup> -Number 4-Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No	

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		EURLINGS et al., "0.11 $\mu$ m imaging in KrF lithography using dipole illumination", Lithography for Semiconductor Manufacturing II, Proceedings of SPIE, Vol. 4404 (2001) pp. 266-278
		HSU et al., "65 nm Full-Chip Implementation Using Double Dipole Lithography", Proceedings of SPIE, Bellingham, VA, vol. 5040, no. 1, 2-25-2003, pp. 215-231, XP 009024366
		HSU et al., "Dipole decomposition mask design for full-chip implementation at 100nm technology node and beyond", Proceedings of The SPIE, Bellingham, VA, vol. 4691, 3-5-2002, pp. 476-490, XP 002261072
		TORRES et al., "Model-assisted double dipole decomposition", Proceedings of The SPIE, Bellingham, VA, vol. 4691, 3-5-2002, pp. 407-417, XP 002257323
		TORRES et al., "Alternatives to alternating phase shift masks for 65nm" Proceedings of The SPIE - The International Society for Optical Engineering SPIE-INT. Soc. Opt. Eng, vol. 4889, 10-1-2002, pp.540-550, XP002320776
		NAM, "Patterning 220nm Pitch DRAM Patterns by Using Double Mask Exposure", Proceedings of SPIE, vol. 4000, (March, 2000), pp.283-292
		FINDERS et al., "Can DUV take us below 100 nm?" Proceedings of SPIE, vol. 4346, (2000), pp. 153-165
		KIM et al., "Feasibility Study of Printing Sub 100 nm with ArF Lithography", Proceedings of SPIE, vol. 4346, (2000), pp. 214-221

EXAMINER	DATE CONSIDERED
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.